TAUNTON CONTRIBUTORY RETIREMENT SYSTEM

Actuarial Valuation Report

January 1, 2006

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Report Summary:

<u>hlights</u>	<u>January 1, 2004</u>	<u>January 1, 2006</u>	
Contributions			
Funding Schedule FY 2007	\$9,833,936	\$9,833,936	
Funding Schedule FY 2008	10,291,742	10,592,592	
<u>Funded Ratios</u>			
GAS No. 25	66.6%	66.4%	
<u>Participants</u>			
Actives	1,267	1,230	
Retirees and Beneficiaries	571	618	
Vested	0	0	
Inactives	124	203	
Disabled	<u>92</u>	<u>96</u>	
Total	2,054	2,147	
<u>Payroll</u>			
Payroll of Active Members	\$44,752,109	\$47,703,996	
Average Payroll	35,321	38,784	
Normal Cost			
Employer	2,294,227	2,779,059	
Employee	3,607,739	3,867,909	
Administrative Expenses	<u>225,000</u>	<u>342,000</u>	
Total	6,126,966	6,988,968	
Actuarial Accrued Liabilities			
Actives	105,849,331	123,277,943	
Retirees, Beneficiaries, Disabilities and Inactives	95,482,203	116,638,356	
Total	202,033,980	239,916,299	
Actuarial Value of Assets	134,562,661	159,373,967	
<u>Unfunded Actuarial Accrued Liabilities</u>	\$67,471,319	\$80,542,332	

Introduction

This report presents the City of Taunton actuarial valuation findings as of January 1, 2006, under the Commonwealth of Massachusetts Retirement System.

The actuarial valuation is based on:

- Provisions Chapter 32 of the Massachusetts General Laws, "M.G.L", as of January 1, 2006.
- Employee data provided by the Retirement Board
- Asset information reported to the Public Employee Retirement Administration Commission by the Taunton Contributory Retirement System
- Actuarial assumptions approved by the Retirement Board

The valuation and appropriation forecast are prepared in accordance with Chapter 32 of the M.G.L. as of January 1, 2006.

The valuation and forecast do not account for:

- Any subsequent changes in the law
- Chapter 32 of the M.G.L., Section 3(8)(c) transfers between systems
- State-mandated benefits
- Cost-of-living increases granted to retired members between 1982 and 1997. The
 cost of these benefits has been assumed by the State under Proposition Two and
 One-Half.

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Actuarial Experience

In performing the actuarial valuation, various assumptions are made regarding such factors as mortality, retirement, disability, and withdrawal rates as well as both payroll, salary increases, and investment returns. A comparison of the current valuation and the prior valuation is made to determine how closely actual experience corresponded to anticipated occurrences. This analysis of the system provides insight into the overall quality of the actuarial assumptions and helps explain any change in the annual appropriation.

Since the last actuarial valuation, the total unfunded actuarial accrued liability increased by 19.4% to \$80,542,332, more than expected. The increase is the result of net unfavorable actuarial experience during the preceding years. The primary component of the unfavorable experience was Group 4 salary increases greater than the 3.0% assumption. Another component of the unfavorable experience was a liability loss from retiree mortality.

Actuarial Costs and Liabilities:

Normal Costs

The normal cost is the sum of the individual normal costs determined for each member as if the assumptions underlying the cost determinations had been exactly realized. An individual normal cost represents that part of the cost of a member's future benefits which are assigned to the current year as if the costs are to remain level as a percentage of the member's pay. Benefits payable under all circumstances (i.e., retirement, death, disability, and terminations) are included in this calculation. Anticipated employee contributions to be made during the year are subtracted from the total normal cost to determine employer normal cost. The total normal cost is divided by total payroll to determine the normal cost as a percent of pay. The normal cost is shown in Table I.

Та	ıble I	
	January 1, 2004	January 1, 2006
Superannuation	\$4,104,957	\$4,623,123
Termination	463,722	522,257
Death	291,297	328,067
Disability	1,041,991	1,173,521
Administrative Expenses	<u>225,000</u>	342,000
Total Normal Cost	6,126,966	6,988,968
% of Pay	13.7%	14.7%
Employee Contributions	3,607,739	3,867,909
% of Pay	8.1%	8.1%
Employer Normal Cost	\$2,519,227	\$3,121,059
% of Pay	5.6%	6.5%

Present Value of Actuarial Accrued Liabilities

The actuarial accrued liabilities (AAL) represents today's value of all benefits earned by the actives and inactives. The AAL can be compared to the assets to determine the funded status of the Plan. The value of these earned benefits is shown in Table II below.

Table II			
	January 1, 2004	January 1, 2006	
Actives			
Superannuations	\$89,996,156	\$108,057,145	
Termination	2,304,255	1,961,165	
Death	3,387,200	3,972,850	
Disability	10,161,720	9,286,783	
Retirees and Inactives			
Retirees and Beneficiaries	95,482,203	95,099,267	
Vested	0	0	
Terminated (Refund)	702,446	1,338,678	
Disabled	<u>N/A</u>	20,200,411	
Total	\$202,033,980	\$239,916,299	

Present Value of Future Benefits

The present value of future benefits represents today's value of all benefits earned by the inactive participants as well as all benefits earned and expected to be earned in the coming years by the active participants. The difference betwee the present value of future benefits and the present value of actuarial accrued liabilities is the value of benefits to be earned in the coming years. The value of the total expected benefits is shown in Table III.

Table III		
	<u>January 1, 2004</u>	January 1, 2006
Actives		
Superannuation	\$132,725,688	\$148,084,003
Termination	3,398,299	4,043,605
Death	4,995,418	6,675,520
Disability	14,986,432	20,462,723
Retirees and Inactives		
Retirees and Beneficiaries	95,482,203	95,099,267
Vested	0	0
Terminated (Refund)	702,446	1,338,678
Disabled	<u>N/A</u>	20,200,411
Total	\$252,290,486	\$295,904,207

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Funded Status and Appropriations:

Market Value of Plan Assets

The trust fund composition on a market value basis is shown in Table IV.

Table IV				
	<u>January 1, 2004</u>	January 1, 2006		
Cash equivalents	\$2,185,685	\$2,147,955		
Short term investments	\$493,705	0		
Fixed income securities	\$42,072,711	45,437,890		
Equities	\$60,833,269	74,041,747		
International	\$15,005,024	21,015,557		
Real Estate	\$7,888,313	8,076,196		
Venture Capital	\$1,296,986	1,536,090		
Accounts receivable	\$4,815,668	7,009,143		
Accounts payable	(\$267,223)	(147,770)		
Accrued income	<u>\$238,523</u>	<u>257,158</u>		
Total Market Value	\$134,562,661	\$159,373,967		
Total Actuarial Value	\$134,562,661	\$159,373,967		

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Unfunded Actuarial Accrued Liabilities

Under the Entry Age Normal Actuarial Cost Method, the Actuarial Accrued Liability represents what the accumulated assets would have been as of the valuation date if:

- current plan provisions and assumptions had always been in effect,
- experience conformed exactly to assumptions, and
- the normal cost had been contributed each year since inception.

The actuarial value of the Fund's assets as of the end of the prior year are subtracted from the Actuarial Accrued Liability (AAL) to determine the Unfunded Actuarial Accrued Liability (UAAL) as of the valuation date. Over time, annual pension contributions will accumulate Plan assets equal to the AAL, and the UAAL will be eliminated. Thereafter, annual contributions equal to the normal cost will keep the Plan's assets and liabilities in balance. The UAAL is developed in Table VI.

Table	e VI	
	<u>January 1, 2004</u>	<u>January 1, 2006</u>
Actuarial Accrued Liability	\$202,033,980	\$239,916,299
Actuarial Assets	<u>134,562,661</u>	159,373,967
Unfunded Actuarial Accrued Liability	\$67,471,319	\$80,542,332
Funded Status	66.6%	66.4%

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Appropriations

The pension appropriation for the upcoming fiscal years have been calculated in accordance with the requirements set forth in Section 22D of Chapter 32 of the Massachusetts General Laws. These amounts were calculated to comply with the June 30, 2028, full funding mandate for all accrued liabilities. The pension appropriation is the sum of the:

- Employer normal cost,
- Increasing amortization of the unfunded actuarial accrued liability by June 30, 2022 \$77,782,158 over 16 years with 4.5% increasing payments
- Increasing amortization of the FY04 Appropriation Deferral by June 30, 2026 \$1,384,029 over 20 years with 4.5% increasing payments
- Increasing amortization of the 2002/2003 Early Retirement Incentives by June 30, 2015 \$579,950 over 9 years with 4.5% increasing payments
- Increasing amortization of the 2004 Early Retirement Incentive by June 30, 2021 \$796,196 over 15 years with 4.5% increasing payments
- Interest adjustment for payments contributed quarterly over fiscal year.

The pension appropriation for FY08 will reflect the new funding schedule and is shown in Table VII.

Table VII		
	January 1, 2004	January 1, 2006
Normal cost	\$3,000,411	\$3,204,728
Amortization of the unfunded accrued liability	6,380,488	6,429,627
Amortization of the FY04 Deferral	97,128	97,128
Amortization payment of ERI liability	145,698	145,698
Total cost before interest adjustment	9,623,725	9,877,181
Interest adjustment	<u>668,017</u>	<u>715,411</u>
Fiscal 2008 cost	\$10,291,742	\$10,592,592

Appropriation Forecast

The following exhibit forecasts employer and employee contributions over the next 32 years under the adopted funding schedule.

Note that the forecast is based upon an "open group" method. This method assumes that sufficient employees will be hired each year to keep the number constant. The total payroll of the system is expected to increase 4.5% per year. The employee contribution rate is expected to increase to 10.5% by 2028 as members contributing base percentages 5%, 7%, and 8% are replaced by new members, whose base contribution is 9%. Payments are assumed to be spread over the fiscal year.

The employer total cost is expected to increase during the next 16 years until the unfunded liabilities are completely paid off. Amortization of the FY04 deferral will be completed by 2026, at which time only the normal cost will remain. The total FY07 cost increase represents 20.6% of payroll, decreasing to approximately 5.0% by the time the unfunded liabilities are fully paid off.

Appropriation Forecast

Fiscal			Employer	Amortization	Employer	Employer	
Year		Employee	Normal Cost	Payments	Total Cost	Total Cost	Funded
Ending	Payroll*	Contribution	with Interest	with Interest	with Interest	% of Payroll	Ratio %**
2007	\$47,703,996	\$3,867,909	\$3,337,700	\$6,496,236	\$9,833,936	20.6	66.4
2008	\$49,850,676	\$4,098,744	\$3,427,176	\$7,165,416	\$10,592,592	21.2	68.2
2009	\$52,093,956	\$4,342,521	\$3,517,947	\$7,487,860	\$11,005,807	21.1	70.0
2010	\$54,438,184	\$4,599,939	\$3,609,947	\$7,824,814	\$11,434,761	21.0	71.8
2011	\$56,887,903	\$4,871,730	\$3,703,103	\$8,176,930	\$11,880,033	20.9	73.7
2012	\$59,447,858	\$5,158,668	\$3,797,333	\$8,544,892	\$12,342,225	20.8	75.6
2013	\$62,123,012	\$5,461,564	\$3,892,544	\$8,929,412	\$12,821,956	20.6	77.5
2014	\$64,918,547	\$5,781,276	\$3,988,636	\$9,331,236	\$13,319,872	20.5	79.5
2015	\$67,839,882	\$6,118,701	\$4,085,493	\$9,751,142	\$13,836,635	20.4	81.6
2016	\$70,892,677	\$6,474,788	\$4,182,990	\$10,073,530	\$14,256,520	20.1	83.7
2017	\$74,082,847	\$6,850,532	\$4,280,989	\$10,526,839	\$14,807,828	20.0	85.8
2018	\$77,416,575	\$7,246,982	\$4,379,337	\$11,000,547	\$15,379,884	19.9	88.0
2019	\$80,900,321	\$7,665,240	\$4,477,867	\$11,495,572	\$15,973,439	19.7	90.2
2020	\$84,540,836	\$8,106,466	\$4,576,397	\$12,012,872	\$16,589,269	19.6	92.5
2021	\$88,345,173	\$8,571,880	\$4,674,727	\$12,553,452	\$17,228,179	19.5	94.9
2022	\$92,320,706	\$9,062,766	\$4,772,640	\$12,981,401	\$17,754,041	19.2	97.4
2023	\$96,475,138	\$9,580,474	\$4,869,898	\$201,018	\$5,070,916	5.3	99.9
2024	\$100,816,519	\$10,126,423	\$4,966,245	\$210,063	\$5,176,308	5.1	99.9
2025	\$105,353,262	\$10,702,107	\$5,061,402	\$219,516	\$5,280,918	5.0	99.9
2026	\$110,094,159	\$11,309,097	\$5,155,066	\$229,394	\$5,384,460	4.9	100.0
2027	\$115,048,396	\$11,949,044	\$5,246,911	\$0	\$5,246,911	4.6	100.0
2028	\$120,225,574	\$12,623,685	\$5,336,582	\$0	\$5,336,582	4.4	100.0
2029	\$125,635,725	\$13,191,751	\$5,576,729	\$0	\$5,576,729	4.4	100.0
2030	\$131,289,332	\$13,785,380	\$5,827,681	\$0	\$5,827,681	4.4	100.0
2031	\$137,197,352	\$14,405,722	\$6,089,927	\$0	\$6,089,927	4.4	100.0
2032	\$143,371,233	\$15,053,979	\$6,363,974	\$0	\$6,363,974	4.4	100.0
2033	\$149,822,939	\$15,731,409	\$6,650,353	\$0	\$6,650,353	4.4	100.0
2034	\$156,564,971	\$16,439,322	\$6,949,618	\$0	\$6,949,618	4.4	100.0
2035	\$163,610,395	\$17,179,091	\$7,262,351	\$0	\$7,262,351	4.4	100.0
2036	\$170,972,862	\$17,952,151	\$7,589,157	\$0	\$7,589,157	4.4	100.0
2037	\$178,666,641	\$18,759,997	\$7,930,669	\$0	\$7,930,669	4.4	100.0
2038	\$186,706,640	\$19,604,197	\$8,287,549	\$0	\$8,287,549	4.4	100.0
	* C-11- 1	_:_					

^{*} Calendar basis

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GASB Statements No. 25 and No. 27

Effective for periods beginning after June 15, 1997, the Governmental Accounting Standards Board (GASB) requires the disclosure of pension related liabilities for public employer financial statements in accordance with Statements 25 and 27. These statements, which replace GASB Statement No. 5, must be adhered to by any public employee retirement system that follows Generally Accepted Accounting Principles (GAAP).

These disclosures are intended to establish a reporting framework that distinguishes between:

- current financial information about plan assets and financial activities,
- actuarially determined information from a long-term perspective,
- the funded status of the plan, and
- progress being made in accumulating sufficient assets to pay benefits when due.

Footnote disclosures required by GASB Statement No. 25 and 27 include a description of the plan, a summary of significant accounting policies, and information about contributions, legally required reserves, and investment concentrations. As a result of the oversight of the Public Employees Retirement Administration Commission (PERAC) and the conversion of unpaid contributions to pension related debt, the Net Pension Obligation (NPO) as required by Statement No. 27 will effectively always be equal to \$0. The required disclosure information is shown in Table VIII.

Table VIII				
		January 1, 2004	January 1, 2006	
(1)	Actuarial Accrued Liability	\$202,033,980	\$239,916,299	
(2)	Actuarial Value of Assets	134,562,661	159,373,967	
(3)	Unfunded Actuarial Accrued Liability	67,471,319	80,542,332	
(4)	Funded Ratio (2)/(1)	66.6%	66.4%	
(5)	Covered Payroll	\$44,752,109	\$47,703,996	
(6)	UAAL as a percentage of payroll: (3)/(5)	150.8%	168.8%	
(7)	Annual Required Contribution (ARC)	\$8,900,630	\$9,833,936	
(8)	Net Pension Obligation	\$0	\$0	

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PERAC Annual Statement APPENDIX PAGE 3 ACTUARIAL VALUATION AND ASSUMPTIONS

The most recent actuarial valuation of the System was prepared by Buck Consultants as of January 1, 2006.

The normal cost for employees on that date was:	\$3,867,909	8.1% of pay
The normal cost for the employer was:	2,779,059	5.8% of pay
The actuarial liability for active members was:		\$123,277,943
The actuarial liability for retired members was:		116,638,356
Total actuarial accrued liability:		239,916,299
System assets as of that date:		159,373,967
Unfunded actuarial accrued liability:		\$80,542,332
The ratio of system's assets to total actuarial liability was		66.4%
•		

The principal actuarial assumptions used in the valuation are as follows:

Investment Return: 8.0% Rate of Salary Increase: 4.75%

SCHEDULE OF FUNDING PROGRESS

Actuarial Valuation Date	Actuarial Value of Assets	Actuarial Accrued Liability	Unfunded Actuarial Accrued	Funded Ratio	Covered Payroll	UAAL as a percent of Covered
	(a)	(b)	Liability (b-a)	(a/b)	(c)	Payroll (b-a)/c
01/01/06	\$159,373,967	\$239,916,299	\$80,542,332	66.4%	\$47,703,996	168.8%
01/01/04	134,563,000	202,034,000	67,471,000	66.6%	44,752,000	150.8%
01/01/03	115,023,000	191,994,000	76,971,000	59.9%	46,332,000	166.1%
01/01/02	118,245,000	184,647,000	66,402,000	64.0%	45,648,000	145.5%
01/01/00	111,164,000	158,208,000	47,044,000	70.3%	39,651,000	118.6%
01/01/98	85,807,000	135,654,000	49,847,000	63.3%	36,254,000	137.5%

Attach Copy of Current Approved Funding Schedule

EXHIBITS

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Age/Service Distribution with Salary as of January 1, 2006

Attained Age	Average Salary <5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40+	Total
< 20	2	0	0	0	0	0	0	0	0	2
	12,001	0	0	0	0	0	0	0	0	12,001
20-24	16	0	0	0	0	0	0	0	0	16
	16,981	0	0	0	0	0	0	0	0	16,981
25-29	49	6	0	0	0	0	0	0	0	55
	27,166	38,241	0	0	0	0	0	0	0	28,374
30-34	33	29	4	0	0	0	0	0	0	66
	24,855	48,547	35,727	0	0	0	0	0	0	35,924
35-39	35	46	28	13	1	0	0	0	0	123
	24,795	46,887	47,846	61,328	38,367	0	0	0	0	42,276
40-44	61	56	36	40	17	0	0	0	0	210
	23,437	34,292	43,121	57,837	59,470	0	0	0	0	39,176
45-49	62	49	29	34	40	12	0	0	0	226
	21,910	27,426	35,914	44,853	61,647	61,379	0	0	0	37,483
50-54	39	51	27	47	26	27	13	0	0	230
	28,956	28,562	23,702	34,506	59,315	76,672	62,044	0	0	40,289
55-59	23	19	20	49	20	26	24	2	0	183
	24,075	31,998	36,892	39,653	30,649	53,322	60,049	35,135	0	40,182
60-64	9	13	12	18	9	11	8	4	1	85
	36,418	25,050	29,823	38,467	34,168	43,267	61,445	67,757	108,987	39,514
65-69	2	7	2	2	4	4	0	0	1	22
	23,224	29,450	38,340	17,710	43,103	45,281	0	0	106,173	37,473
70+	2	2	0	6	2	0	0	0	0	12
	36,351	11,092	0	17,979	28,647	0	0	0	0	21,671
Total Employees		278	158	209	119	80	45	6	2	1,230
Average Salary	24,723	34,809	37,271	43,236	52,165	60,627	60,874	56,883	107,580	38,364

 $P: \label{eq:partial} P: \label{eq:partial} P: \label{eq:partial} Actrl \ 13007 \ 2006 \ [salRET1.xls] Retirees$

Retiree Distribution as of January 1, 2006

	Numbe	er of Employe	ees	Total		
Attained Age	Male	Female	Total	Male	Female	Total
< 20	0	0	0	0	0	0
20-24	0	0	0	0	0	0
25-29	0	0	0	0	0	0
30-34	0	0	0	0	0	0
35-39	0	1	1	0	1,134	1,134
40-44	0	0	0	0	0	0
45-49	4	0	4	119,512	0	119,512
50-54	5	3	8	128,683	83,343	212,026
55-59	34	12	46	1,335,820	160,571	1,496,391
60-64	41	29	70	1,263,492	398,161	1,661,653
65-69	57	37	94	1,457,229	407,033	1,864,261
70-74	60	35	95	1,482,893	482,050	1,964,943
75-79	66	38	104	1,192,027	412,957	1,604,984
80-84	60	49	109	975,406	456,312	1,431,719
85-89	30	26	56	344,415	212,432	556,847
90-94	18	7	25	136,578	28,131	164,709
95-99	3	3	6	19,420	28,616	48,037
	378	240	618	8,455,476	2,670,741	11,126,217
rage (Age/Payment)	73.6	74.6	74.0	22,369	11,128	18,004
uency Percent	61.2	38.8	100.0	76.0	24.0	100.0

 $P: \label{eq:partial} P: \label{eq:partial} P: \label{eq:partial} Actrl \ 13007 \ 2006 \ [salDIS1.xls] Disabled$

Disabled Retiree Distribution as of January 1, 2006

	Numbe	er of Employe	ees	Total I		
Attained Age	Male	Female	Total	Male	Female	Total
< 20	0	0	0	0	0	0
20-24	0	0	0	0	0	0
25-29	0	0	0	0	0	0
30-34	0	0	0	0	0	0
35-39	0	0	0	0	0	0
40-44	1	1	2	50,106	5,894	56,001
45-49	4	1	5	106,999	3,609	110,607
50-54	5	1	6	155,143	32,364	187,507
55-59	17	2	19	519,565	37,529	557,094
60-64	16	2	18	431,670	4,771	436,440
65-69	6	0	6	193,380	0	193,380
70-74	12	1	13	205,635	10,424	216,059
75-79	9	0	9	152,709	0	152,709
80-84	12	0	12	189,446	0	189,446
85-89	4	0	4	57,299	0	57,299
90-94	2	0	2	29,822	0	29,822
95-99	0	0	0	0	0	0
	88	8	96	2,091,774	94,590	2,186,364
age (Age/Payment)	67.5	56.1	66.6	23,770	11,824	22,775
uency Percent	91.7	8.3	100.0	95.7	4.3	100.0

EXHIBIT 4 - CASHFLOW FORECAST:

The following is a 30 year forecast of benefit payments net of state reimbursable COLA payments, Contribution Income and Investment Returns.

Plan Year Ending	Benefit Payments	Employee Contributions	Employer Contributions	Investment Returns	Net change in plan assets
2006	\$13,911,494	\$3,867,909	\$9,833,936	\$12,576,976	\$12,367,327
2007	\$14,686,608	4,098,744	10,592,592	\$13,179,823	13,184,551
2008	\$15,493,222	4,342,521	11,005,807	\$14,207,812	14,062,918
2009	\$16,252,883	4,599,939	11,434,761	\$15,308,317	15,090,134
2010	\$17,075,525	4,871,730	11,880,033	\$16,488,960	16,165,198
2011	\$17,907,259	5,158,668	12,342,225	\$17,755,710	17,349,344
2012	\$18,826,508	5,461,564	12,821,956	\$19,114,248	18,571,261
2013	\$19,817,900	5,781,276	13,319,872	\$20,568,229	19,851,476
2014	\$20,850,723	6,118,701	13,836,635	\$22,123,555	21,228,168
2015	\$21,881,149	6,474,788	14,256,520	\$23,788,548	22,638,707
2016	\$22,912,002	6,850,532	14,807,828	\$25,568,094	24,314,452
2017	\$24,055,474	7,246,982	15,379,884	\$27,477,945	26,049,337
2018	\$25,166,304	7,665,240	15,973,439	\$29,528,574	28,000,948
2019	\$26,294,536	8,106,466	16,589,269	\$31,735,397	30,136,597
2020	\$27,392,336	8,571,880	17,228,179	\$34,115,063	32,522,785
2021	\$28,521,539	9,062,766	17,754,041	\$36,683,881	34,979,149
2022	\$29,673,363	9,580,474	5,070,916	\$39,376,464	24,354,490
2023	\$30,783,296	10,126,423	5,176,308	\$41,292,385	25,811,820
2024	\$31,847,783	10,702,107	5,280,918	\$43,327,533	27,462,776
2025	\$32,878,681	11,309,097	5,384,460	\$45,496,990	29,311,866
2026	\$33,882,141	11,949,044	5,246,911	\$47,814,047	31,127,861
2027	\$34,863,476	12,623,685	5,336,582	\$50,280,552	33,377,343
2028	\$35,713,905	13,191,751	5,576,729	\$52,923,309	35,977,884
2029	\$36,420,329	13,785,380	5,827,681	\$55,780,027	38,972,759
2030	\$37,006,396	14,405,722	6,089,927	\$58,881,335	42,370,588
2031	\$37,472,342	15,053,979	6,363,974	\$62,259,474	46,205,085
2032	\$37,733,505	15,731,409	6,650,353	\$65,952,711	50,600,968
2033	\$37,825,227	16,439,322	6,949,618	\$70,004,584	55,568,297
2034	\$37,657,651	17,179,091	7,262,351	\$74,464,349	61,248,140
2035	\$38,921,578	17,952,151	7,589,157	\$79,322,690	65,942,419

amounts in thousands

temp.doc

EXHIBIT 5 – SUMMARY OF PLAN PROVISIONS:

This summary is prepared in accordance with Chapter 32 as of January 1, 2006, and does not take into account any subsequent changes.

1. Administration

Each of the 107 contributory retirement systems for public employees for the Commonwealth of Massachusetts are guided by the applicable provisions of Chapter 32 of the Massachusetts General Laws and other applicable statutes. Although these boards operate semi-independently, there is a uniform set of rules governing benefits, eligibility, contributions, financing, and accounting.

2. Participation

Participation is mandatory for all full-time employees. Eligibility with respect to part-time, professional, temporary, or intermittent employment is governed by the local board. Membership is optional for certain elected officials, State officials appointed by the Governor, and certain hospital interns.

There are four classes of membership as follows:

- (i) Group 1: Most general employees in State and local government
- (ii) <u>Group 2</u>: Certain specified hazardous duty positions
- (iii) Group 3: State police officers and inspectors
- (iv) Group 4: Local police officers, firefighters, and designated employees of the municipal light department.

For members in more than one group, participation will be proportional.

3. Salary

Salary is defined as gross regular compensation. Salary <u>does not</u> include bonuses, overtime, severance pay, unused sick leave credit, or other similar compensation.

4. <u>Member Contributions</u>

Member contributions vary depending upon date hired as follows:

Member							
Date of Hire	Contribution Rate						
Prior to 1975	5.0% of Salary						
1975 to 1983	7.0% of Salary						
1984 to 1996	8.0% of Salary						
1996 and Later plus	9.0% of Salary						
1979 and Later	2.0% of Salary in excess of \$30,000						

5. Average Salary

Average salary is used to determine a participant's benefit. It is defined as the average salary during the three consecutive-year period that produces the highest average. (Alternatively, if a greater amount results, it is the average rate of salary earned during the period or periods, whether or not consecutive, that constitutes the last three years preceding retirement.)

6. <u>Creditable Service</u>

In general, creditable service is awarded during the period in which a member contributes to the retirement system.

7. Service Retirement

a. Eligibility:

For an employee to be eligible for service retirement (also referred to as superannuation), one of the following conditions must be met:

- (i) completion of 20 years of service
- (ii) for an employee hired prior to January 1, 1978, attainment of age 55 as an active member
- (iii) for an employee hired on or after January 1, 1978, attainment of age 55 as an active member and completion of ten years of service
- (iv) if an employee is a State Police officer (Group 3), attainment of age 50

b. Benefit Amount:

The retirement allowance is determined as a product of the participant's Benefit Rate times Average Salary times Creditable Service, where Benefit Rate is determined from the following table:

Age at	Percei	Salary	
Retirement	Group 1	Group 2	Group 4
65 or Over	.025	.025	.025
64	.024	.025	.025
63	.023	.025	.025
62	.022	.025	.025
61	.021	.025	.025
60	.020	.025	.025
59	.019	.024	.025
58	.018	.023	.025
57	.017	.022	.025
56	.016	.021	.025
30	.010	.021	.023
55	.015	.020	.025
54	.014	.014	.024
53	.013	.013	.023
52	.012	.012	.022
51	.011	.011	.021
~0	0.1.0	010	020
50	.010	.010	.020
49	.009	.009	.019
48	.008	.008	.018
47	.007	.007	.017
46	.006	.006	.016
45	.005	.005	.015
44	.004	.004	.004
43	.003	.003	.003
42	.002	.002	.002
41	.001	.001	.001
• •			

For Group 3 (State Police), the benefit is 50% of the participant's final year's rate of regular salary, plus an additional 1% for each year of service in excess of 20 years. In addition, for veterans (all groups) there is an additional benefit of \$15 per year for each year of service, up to a maximum of 20 years of service.

8. <u>Deferred Vested Retirement</u>

a. Eligibility:

A participant who has completed ten or more years of creditable service is eligible for a deferred vested retirement benefit. If termination is involuntary, the participant is vested after six years.

b. Benefit Amount:

The participant's accrued benefit is payable commencing at age 55, or may be deferred until later at the employee's option.

c. Refund of Contributions:

In lieu of the deferred pension benefit, a member may elect to receive a refund of their accumulated contributions. Members (on or after 1/1/1984) with ten or more years of service are entitled to 100% of the credited interest on their contributions. Members with five to ten years of service are entitled to 50% of the credited interest on their contributions. No credited interest is provided for members with less than five years of service.

9. Accidental Disability

a. Eligibility:

Participants are eligible for an accidental disability benefit, regardless of service or age, if they become permanently and totally incapacitated for further duty as a result of personal injury sustained while in the performance of duties.

b. Benefit Amount:

The accidental disability amount is 72% of annual salary plus \$629.64 per year for each child plus an additional annuity based upon accumulated Member Contributions with credited interest.

10. Ordinary Disability

a. <u>Eligibility</u>:

An ordinary disability occurs when a member becomes permanently and totally disabled due to sickness or injury that is not job related. In order to be eligible for an ordinary disability benefit, a member must have ten years of service (and be less than age 55).

b. Benefit Amount:

The ordinary disability amount is equal to the accrued retirement benefit as if the member were age 55. If the member was a veteran, the benefit is 50% of the member's final rate of Salary during the preceding 12 months, plus an annuity based upon accumulated Member Contributions plus credited interest. If the participant is over age 55, he will receive not less than the superannuation allowance to which he is entitled.

11. Survivor Benefits

a. Occupational Death:

The survivors of a member who dies due to an occupational injury will be entitled to a lump sum return of contributions plus a pension benefit equal to 72% of the participant's annual Salary.

b. <u>Non-Occupational Death</u>:

Upon the death of a member other than due to an occupational injury, the designated beneficiary will be entitled to a retirement benefit as if Option C had been elected with a minimum of \$250 per month to the surviving spouse, plus \$120 for the first child, plus \$90 for each additional child. If no beneficiary is designated and if the employee worked two years, and is married at least one year, the spouse may elect benefits. If there is no designated beneficiary or surviving spouse, then member contributions are returned. If there are dependent children but no surviving spouse, they may elect minimum survivor benefits of \$250 per month plus \$120 for the first child and \$90 for each additional child.

c. Refund of Contributions:

Upon the death of a member not entitled to survivor benefits, the beneficiary is entitled to a refund of all member contributions with interest.

12. <u>Cost-of-Living Increases</u>

In accordance with the adoption of Chapter 17 of the Acts of 1997, the granting of a cost-of-living adjustment will be determined by an annual vote by the Retirement Board. The amount of increase will be based upon the Consumer Price Index, limited to a maximum of 3.0%, beginning on July 1. All retirees, disabled retirees, and beneficiaries who have been receiving benefits payments for at least one year as of July 1 are eligible for the adjustment. The maximum amount of pension benefit subject to a COLA is \$12,000. All COLAs granted to members after 1981 and prior to July 1, 1998 are deemed to be an obligation of the State and are not the liability of the Retirement System.

13. Postretirement Death Benefits

Any benefits following the death of a member after retirement are based upon the form of benefit the participant elected at the time of retirement. There are three available forms as follows:

- (i) Option A Life annuity
- (ii) Option B Life annuity with death benefit equal to excess of member contributions plus credited interest to retirement over annuity benefit paid to member
- (iii) Option C Life annuity with 66-2/3% of benefit continued after death of member to designated joint annuitant

EXHIBIT 6 – ACTUARIAL METHODS AND ASSUMPTIONS:

The actuarial cost method, factors, and assumptions used in determining cost estimates are presented below.

1. Member Data

The member data used in the determination of cost estimates consist of pertinent information with respect to the active, inactive, retired, and disabled members of the employer as supplied by the employer to the actuary.

2. <u>Valuation Date</u>

January 1, 2006.

3. Actuarial Cost Method

The costs of the Plan have been determined in accordance with the individual entry age normal actuarial cost method.

4. Rate of Investment Return

It is assumed that the assets of the fund will accumulate at a compound annual rate of 8.0% per annum.

5. Salary Scale

The assumed annual rates for salary increases including longevity are illustrated by the following rates:

Year	Group 1 & 2	Group 4
2006	3.0%	3.0%
2007	3.0%	3.0%
2008	4.0%	4.0%
2009	4.0%	4.0%
2010	4.0%	4.0%
2011	4.0%	4.0%
2012+	4.75%	5.25%

6. <u>Cost-of-Living Increases</u>

Cost-of-living increases have been assumed to be 3.0% of the lesser of the pension amount and \$12,000 per year.

7. Value of Investments

Assets held by the fund are valued at market value as reported by the Public Employees' Retirement Administration Commission (PERAC).

8. Annual Rate of Withdrawal Prior to Retirement

Based on an analysis of experience, the assumed annual rates of withdrawal may best be illustrated by the following rates at the following ages:

Carria	General	Police and Fire
Service	Employees	Employees
0	0.1500	0.0150
10	0.0540	0.0150
20	0.0200	0.0000
30	0.0000	0.0000

9. Annual Rate of Mortality

It is assumed that both preretirement and postretirement mortality are represented by the RP-2000 Mortality Table for males and females. Mortality for disabled members is represented by the RP-2000 Mortality Table set forward two years for all disabled members.

10. Service Retirement

Based on an analysis of experience, the assumed annual retirement rates are illustrated at the following ages:

	Male	Male Female	
	General	General	Police and Fire
<u>Age</u>	Employees	Employees	Employees
50	0.0100	0.0150	0.02000
51	0.0100	0.0150	0.02000
52	0.0100	0.0200	0.02000
53	0.0100	0.0250	0.05000
54	0.0200	0.0250	0.07500
55	0.0200	0.0550	0.15000
56	0.0250	0.0650	0.10000
57	0.0250	0.0650	0.10000
58	0.0500	0.0650	0.10000
59	0.0650	0.0650	0.15000
60	0.1200	0.0500	0.20000
61	0.2000	0.1300	0.20000
62	0.3000	0.1500	0.25000
63	0.2500	0.1250	0.25000
64	0.2200	0.1800	0.30000
65	0.4000	0.1500	1.00000
66	0.2500	0.2000	1.00000
67	0.2500	0.2000	1.00000
68	0.3000	0.2500	1.00000
69	0.3000	0.2000	1.00000
70	1.0000	1.0000	1.00000

11. Annual Rate of Disability Prior to Retirement

Based on an analysis of experience, the assumed annual rates of disability may best be illustrated by the following probabilities at the following ages:

Attained <u>Age</u>	General <u>Employees</u>	Police and Fire Employees
20	0.0001	0.0001
30	0.0003	0.0030
40	0.0010	0.0030
50	0.0019	0.0125

In addition, it is assumed for the general employees that 45% of all disabilities are ordinary (55% are service connected). For police and fire employees, 10% of all disabilities are assumed to be ordinary (90% are service connected).

12. Family Composition

It is assumed that 80% of all members will be survived by a spouse and that females (males) are three years younger (older) than members.

13. Administrative Expenses

The normal cost is increased by an amount equal to the anticipated administrative expenses for the upcoming fiscal year. The amount for fiscal year 2006 is \$342,000 and is anticipated to increase at 4.5% per year.

EXHIBIT 7 – GLOSSARY OF TERMS:

This glossary summarizes the technical terms contained in this report.

1. Actuarial Accrued Liability

That portion of the Actuarial Present Value of plan benefits that is not provided for by future employer Normal Costs or employee contributions.

2. <u>Actuarial Assumptions</u>

Assumptions as to the occurrence of future events affecting the Retirement System such as:

- Rates of investment returns
- Increases in a member's salary
- Inflation
- The probability of mortality, turnover, disablement
- Retirement at each age and other relevant items

3. <u>Actuarial Cost Method</u>

A procedure for allocating the Actuarial Present Value of pension plan benefits between Normal Cost and Actuarial Accrued Liability.

4. Actuarial Present Value

The single sum amount required at the valuation date that is required to provide for anticipated future events based upon the terms of the plan and the Actuarial Assumptions.

5. Forecast

A projection of future benefit payments or contribution requirements based upon the terms of the plan, the current asset amounts, the Actuarial Assumptions, and additional assumptions as to the replacement of terminating employees with new employees.

6. Normal Cost

That portion of the Actuarial Present Value of future benefits that is assigned to the current year.

7. <u>Unfunded Actuarial Accrued Liability</u>

That portion of the Actuarial Accrued Liability that is not provided for by current actuarial value of assets.

8. Valuation Method

The method used to divide the cost of future benefits among the Actuarial Accrued Liability, the current year's Normal Costs, and future years' Normal Costs. The resulting current funding requirement is then determined as the current year's Normal Cost plus the payment necessary to amortize the Unfunded Actuarial Liability.

9. Vested Liability

That portion of the Actuarial Present Value of Accrued Benefits that a member would be entitled to if the member terminated employment with the employer as of the valuation date.

CERTIFICATION:

This report fairly represents the actuarial position of the Taunton Contributory Retirement System contributing as of January 1, 2006, in accordance with generally accepted actuarial principles applied consistently with the preceding valuation. In our opinion, the actuarial assumptions used to compute actuarial accrued liability and normal cost is reasonably related to plan experience and to reasonable expectations, and represents our best estimate of anticipated plan experience.

Buck Consultants, LLC

Daniel W. Sherman, ASA, MAAA Enrolled Actuary No. 05-4086

August 2006

BREAKOUTS

Taunton Contributory Retirement System

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 $P: \label{eq:condition} P: \label{eq:condition} Actrl \ 13007 \ 2006 \ [Taunton 06_Val_Version 2.xls] Breakouts$

Breakouts

							Nursing		
	Total	<u>City</u>	GATRA	Landfill	Sewer	Water	Home	<u>Light</u>	Housing
(1) Participants									
(a) Actives	1,230	876	15	1	5	40	96	162	35
(b) Inactives	203	134	0	0	0	1	59	5	4
(c) Retirees and Beneficiaries	618	423	1	1	16	19	12	134	12
(e) Disabled Retirees	<u>96</u>	<u>55</u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>6</u>	<u>4</u>	<u>24</u>	<u>4</u>
(f) Total	2,147	1,488	16	2	24	66	171	325	55
(2) Payroll of Active Participants	47,703,996	30,034,357	536,730	40,670	221,475	1,558,254	2,484,972	11,368,366	1,459,172
Percent of Total Payroll	100.00%	62.96%	1.13%	0.09%	0.46%	3.27%	5.21%	23.83%	3.06%
(3) Normal Cost									
(a) Total Normal Cost	6,646,968	4,256,188	62,288	4,136	13,847	157,577	328,764	1,660,790	163,378
(b) Expected Employee Contributions	3,867,909	2,404,400	44,966	3,602	13,814	120,075	206,443	950,417	124,192
(c) Administrative Expenses	342,000	220,830	<u>1,539</u>	<u>238</u>	4,547	11,149	<u>6,117</u>	90,865	<u>6,716</u>
(d) Net Employer Normal Cost (a) - (b) + (c)	3,121,059	2,072,618	18,861	772	4,580	48,651	128,438	801,238	45,902
(4) Actuarial Accrued Liability	239,916,299	154,914,377	1,079,494	167,187	3,189,561	7,821,062	4,290,965	63,742,330	4,711,323
(5) Assets*	159,373,967	102,908,051	<u>717,097</u>	111,061	2,118,793	5,195,452	2,850,445	42,343,384	3,129,684
(6) Unfunded Actuarial Accrued Liability (4) - (5)	80,542,332	52,006,326	362,397	56,126	1,070,768	2,625,610	1,440,520	21,398,946	1,581,639
(7) Fiscal 2007 Cost	9,833,936	7,107,691	32,191	0	0	0	0	2,550,246	143,808
Percentage of total	100.00%	72.28%	0.33%	0.00%	0.00%	0.00%	0.00%	25.93%	1.46%
(8) Fiscal 2008 Cost	10,592,593	6,794,152	61,326	7,049	118,898	340,546	288,785	2,742,814	239,022
Percentage of total	100.00%	64.14%	0.58%	0.07%	1.12%	3.21%	2.73%	25.89%	2.26%
(9) Fiscal 2009 Cost	11,005,807	7,059,259	63,491	7,327	124,117	354,366	298,642	2,850,386	248,219
(10) Fiscal 2010 Cost	11,434,760	7,334,468	65,727	7,616	129,564	368,741	308,801	2,962,086	257,759
(11) Fiscal 2011 Cost	11,880,033	7,620,150	68,035	7,915	135,250	383,692	319,270	3,078,067	267,655
(12) Fiscal 2012 Cost	12,342,225	7,916,691	70,418	8,226	141,185	399,241	330,055	3,198,488	277,919

^{*} Allocation is based on the ratio of the Actuarial Accrued Liability

Appropriation Forecast - Municipal Light Plant

Fiscal			Unfunded			
Year	Employer	Admin	Liability	ERI	Holiday	Employer
Ending	Normal Cost	<u>Expense</u>	Amortization	Amortization	Amortization	Total Cost
2008	\$760,809	\$101,544	\$1,834,755	\$19,259	\$26,447	\$2,742,814
2009	\$779,191	\$106,114	\$1,917,319	\$20,125	\$27,637	\$2,850,386
2010	\$797,687	\$110,889	\$2,003,598	\$21,031	\$28,881	\$2,962,086
2011	\$816,270	\$115,879	\$2,093,760	\$21,978	\$30,180	\$3,078,067
2012	\$834,910	\$121,094	\$2,187,979	\$22,967	\$31,538	\$3,198,488
2013	\$853,575	\$126,543	\$2,286,438	\$24,000	\$32,957	\$3,323,514
2014	\$872,229	\$132,237	\$2,389,328	\$25,080	\$34,441	\$3,453,315
2015	\$890,833	\$138,188	\$2,496,848	\$26,209	\$35,990	\$3,588,068
2016	\$909,345	\$144,406	\$2,609,206	\$0	\$37,610	\$3,700,568
2017	\$927,720	\$150,905	\$2,726,620	\$0	\$39,302	\$3,844,547
2018	\$945,907	\$157,695	\$2,849,318	\$0	\$41,071	\$3,993,991
2019	\$963,852	\$164,792	\$2,977,538	\$0	\$42,919	\$4,149,100
2020	\$981,496	\$172,207	\$3,111,527	\$0	\$44,851	\$4,310,081
2021	\$998,777	\$179,957	\$3,251,545	\$0	\$46,869	\$4,477,148
2022	\$1,015,626	\$188,055	\$3,397,865	\$0	\$48,978	\$4,650,523
2023	\$1,031,968	\$196,517	\$0	\$0	\$51,182	\$1,279,667